

Work Order ID 108011

October-07-13 9:06:27 AM

**U/R**

\*108011\*

Page 1

Item ID: 646.3511

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Strut

Start Date: 10/07/13 Start Qty: 5.00 \*5\*

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00 \*5\*

Customer:

Reference:

Approvals:

Process Plan: M2

Date: 13-10-08

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.3500	N/C U/R								

110

\*110\*

Waterjet

FLOW CNC Waterjet

Memo

0.00

1-Cut 646.3500 plate 2.75"x 1.50" as per Dwg

Dwg Rev: N/C

Prog Rev: N/C

2-Deburr if necessary

5 0 13-11-02

120

QC2- Inspect parts off machine FAI/FAIB

0.00

\*120\*

QC

Quality Control

Memo

0.00

5 0 13-11-02

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
	Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other						

**Work Order ID 108011**

**\*108011\***

Page 2

October-07-13 9:06:27 AM

Item ID: 646.3511

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Strut

Start Date: 10/07/13 Start Qty: 5.00

**\*5\***

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00

**\*5\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

**\*130\***

QC

Quality Control

QC8- Inspect parts - second check

0.00

DAS

27

9-89

13-11-04

S

140

**\*140\***

Small Fab

Small Fab

Memo

0.00

0.00

5

13-11-25 MAL

150

**\*150\***

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

(5)

13-11-25

DAS  
09  
9-89

NCR: Yes / No

# **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: Date:

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending	General			Bend	General			Grain	Ovalized	Pressure/Forced	
Centre Not Concentric to O/S				BOM/Route				Hardware	Over/Under tolerance	Temperature/Cure	
Cracks				Broken/Damaged				Inspection Incomplete	Part Incorrect	Weld	
Crushed/Crimped.				Burrs				Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled	
Cuffs				Contamination				Maintenance	Part Moved		
Heat Treat				Countersink				Mislabeled	Positioned Wrong		
Inspection Strip in Tube				Cut Too Short				Misread	Power Loss/Surge		
Ripples in Bend				Drill Holes				Offset			
Torque Waves in Extrusion				Drawing				Out of Calibration			
Turning Sequence				Finish				Out of Sequence			
Wave/Twist in Tube				Folio				Outside Dimensions			

Work Order ID 108011

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Page 3

Item ID: 646.3511

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Strut

Start Date: 10/07/13 Start Qty: 5.00

\*5\*

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00

\*5\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

\*160\*

Large Fab

Large Fab

Weld per dwg A/R Aluminum rod Batch: M1250540.00

170

\*170\*

QC

Quality Control

QC9- Inspect visual per QSI004- Fusion Welds

0.00

DAS

9

9-89

180

\*180\*

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

DAS

0

9-89

Reference:

5

13-11-26 mal

⑤

B-11-26

Reference:

⑤

B-11-26

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS														
			Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/>	Quality <input type="checkbox"/>	Other <input type="checkbox"/>
Part No. _____			Work Order Update <input type="checkbox"/>																	
NCR No. _____																				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance			Initial Chief Eng	Action Description			Sign & Date	Verification	QC Inspector							
Doc/Data																				
Equip/Tooling																				
Operator																				
Material																				
Setup																				
Other																				
Process																				
Supplier																				
Training																				
Unapproved																				
FAULT CATEGORY																				
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio				<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled				
																<input type="checkbox"/> Other				

Work Order ID: 108011

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Page 4

Item ID: 646.3511

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Strut

Stop

\*NS2\*

Start Date: 10/07/13 Start Qty: 5.00

\*5\*

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00

\*5\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

220

\*220\*

SprayPaint

Spray Painting

Memo

0.00

5

Ø

Ø

13-12-3

0.00

230

\*230\*

QC

Quality Control

QC14- Inspect Spray Paint

0.00

5

DAS  
05

13-12-3

240

\*240\*

Packaging

Packaging

Memo

0.00

0.00

5R

DAS  
26  
9-89

13-12-3

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND  
REV\*\*\*

ST 523

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
				Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>			
				Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>			
				Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>			
				Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>			
				Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>				
				Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>				
				Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>			
				Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>					
				Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>					
				Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>					
				Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>					

**Work Order ID 108011**

October-07-13 9:06:27 AM

**\*108011\***

Page 5

Item ID: 646.3511

Accept

**\*N900040100\***

Setup

Start

**\*NS1\***

Revision ID:

Item Name: Strut

Stop

**\*NS2\***

Start Date: 10/07/13 Start Qty: 5.00

**\*5\***

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00

**\*5\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID  
250

**\*250\***

QC

Quality Control

Operation  
Description

QC21- Final Inspection - Work Order Release

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

*[Handwritten signatures and initials over the table]*

*MB-123*

NCR: Yes / No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: Date: .

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
				Bending <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>				
				Centre Not Concentric to O/S <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>				
				Cracks <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>				
				Crushed/Crimped. <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>				
				Cuffs <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>					
				Heat Treat <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>					
				Inspection Strip in Tube <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>					
				Ripples in Bend <input type="checkbox"/>	Offset <input type="checkbox"/>						
				Torque Waves in Extrusion <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
				Turning Sequence <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						
				Wave/Twist in Tube <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>						

# Picklist Print

October-07-13 9:06:26 AM

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Work Order ID: 108011

Parent Item: 646.3511

Parent Item Name: Strut

Start Date: 10/07/13

Required Date: 10/07/13

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP REV:A 12.10.19 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA 304/316 Sheet .063		Purchased	No				sf	513.3940		0.146316		Ac 13-10-02	

Location	Loc Qty	Loc Code
MAT020	513.3939998	
123136	140.2	
M126159	31.5	
<u>M126915</u>	341.694	

M304TR0.500W.049 304 RD Tube .500 x .049W	Purchased	No					f	320.9109		4.3842105		
--	-----------	----	--	--	--	--	---	----------	--	-----------	--	--

Location	Loc Qty	Loc Code
GA	43.66	
120633	43.66	
MAT017	277.250916	
119087	0.000016	
123449	86.0547	
125513	26.534	
<u>m126466</u>	3.54	164.6622

126915 → .15  
13-11-25 MAL

NCR: Yes / No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: Date:

QA Closed: Date:

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other			
Part No. _____  NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending	Bend	Grain	Ovalized	Pressure/Forced							
Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure							
Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld							
Crushed/Crimped.	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled							
Cuffs	Contamination	Maintenance	Part Moved								
Heat Treat	Countersink	Mislabeled	Positioned Wrong								
Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge								
Ripples in Bend	Drill Holes	Offset									
Torque Waves in Extrusion	Drawing	Out of Calibration									
Turning Sequence	Finish	Out of Sequence									
Wave/Twist in Tube	Folio	Outside Dimensions									

DART AEROSPACE LTD	Work Order:	108011
Description: Strut	Part Number:	646.3511
Inspection Dwg: 646.3500 Rev: N/C		Page 1 of 1

## **FIRST ARTICLE INSPECTION CHECKLIST**

27

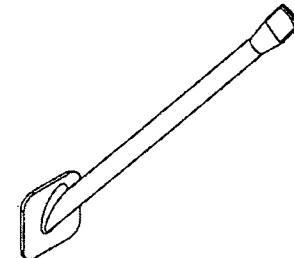
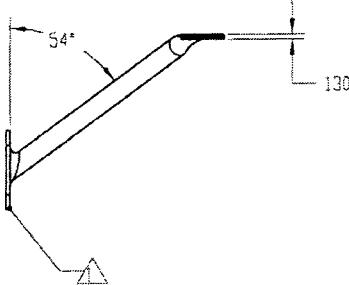
Measured by:	<i>A.</i>	Audited by:	9-89	Preliminary Approval:	
Date:	<i>13.11.02</i>	Date:	<i>13.11.04</i>		Date:

<b>Rev</b>	<b>Date</b>	<b>Change</b>	<b>Revised by</b>	<b>Approved</b>
E	10.04.14	Added preliminary approval	KJ	.

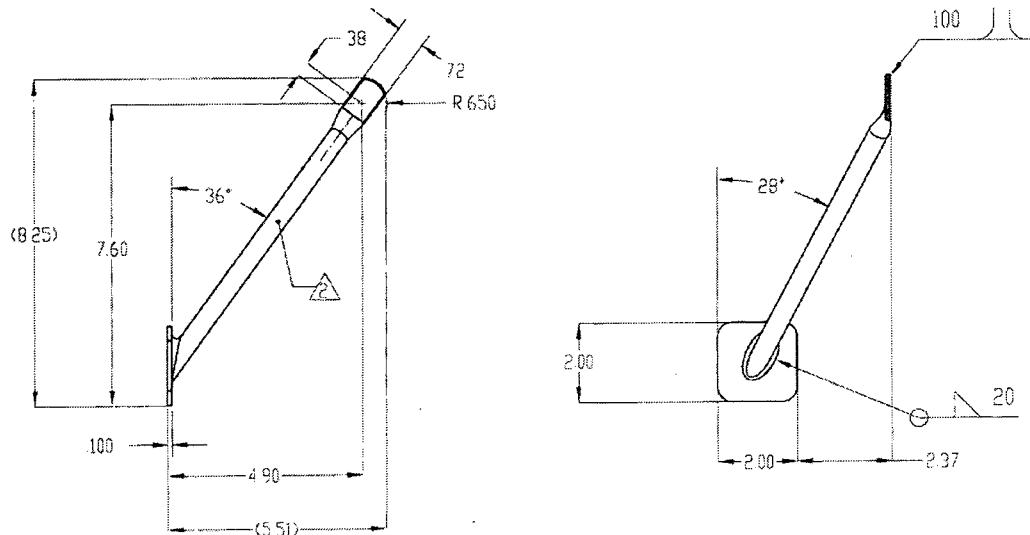
10.04.15

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE			NO. 02440	SHEET <u>1</u> OF 1
	DWG NO. 646.3500	REV: NC	PREPARED BY S. HUFF	DATE 06/08/09	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.
	DWG TITLE:		STRUCTURE		
	APPROVED BY: ENGR <i>[Signature]</i>	MFG	QC	EFF: CURRENT ORDER AND STOCK	
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE REASON: REVISED GEOMETRY TO ACCOMMODATE NEW EXISTING AIRCRAFT PROVISIONS					

SHEET 2 IS:



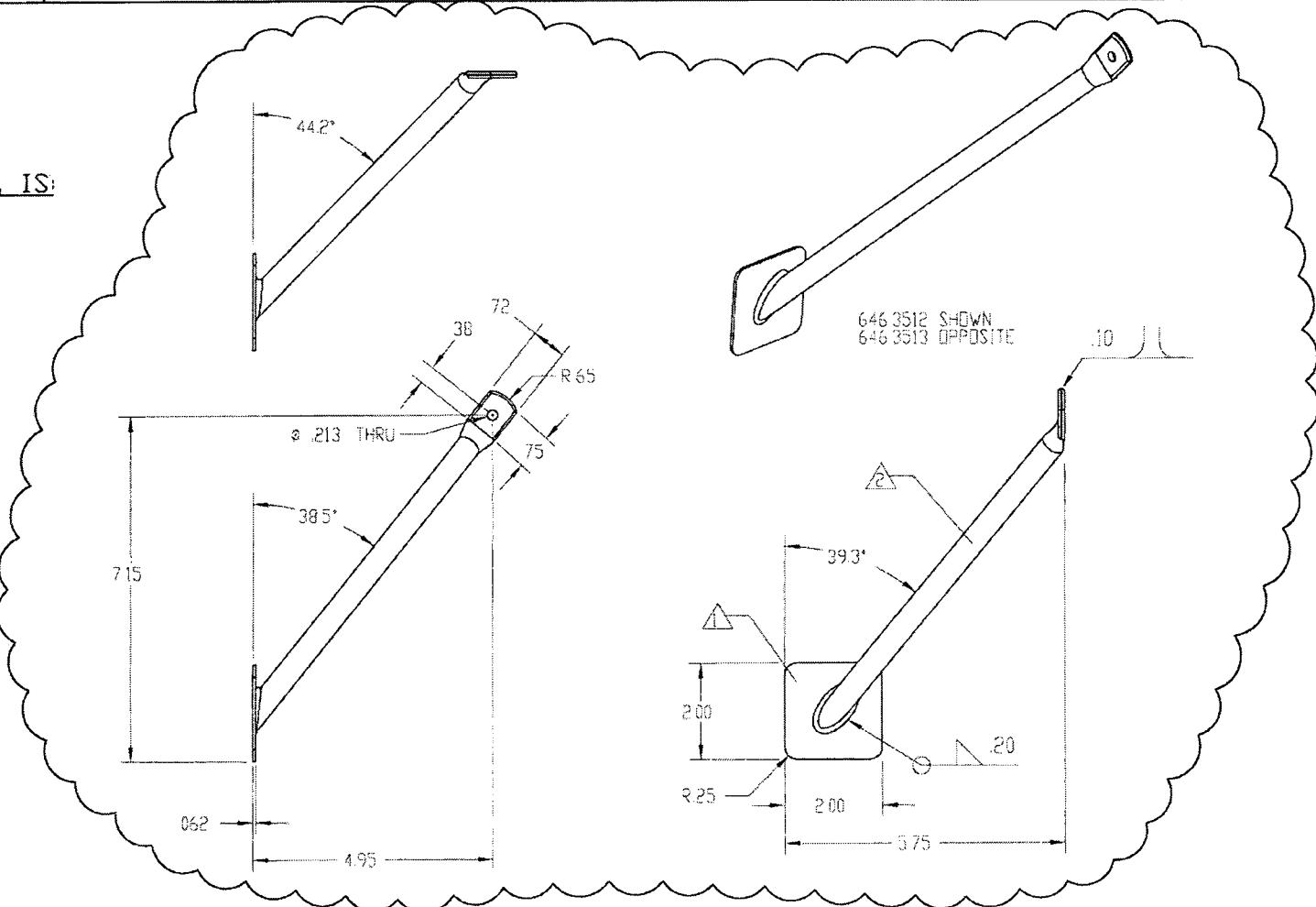
646.3512 SHOWN  
646.3513 OPPOSITE



DOCUMENTS EFFECTED:	<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> FMS <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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108011

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02197			SHEET 1 OF 1	
	DWG NO. 646.3500	REV:N/C	PREPARED BY S. HUFF	DATE: 01/05/09	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.
	DWG TITLE:		STRUT		
	APPROVED BY: ENGR <i>P. Brana</i>	MFG <i>Don Lake</i>	QC <i>[Signature]</i>	EFF: <i>[Signature]</i>	NEXT ORDER
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE					
REASON: REVISED ANGLE OF 646.3512 & 646.3513 FOR BETTER FITMENT					

SHEET 2, IS:

DOCUMENTS EFFECTED:

 MDL  INSTALL INSTRUC  ICA  FMS  BOM

 CHANGE CATEGORY  
 MAJOR  MINOR

 DER REVIEW REQUIRED  
 YES  NO

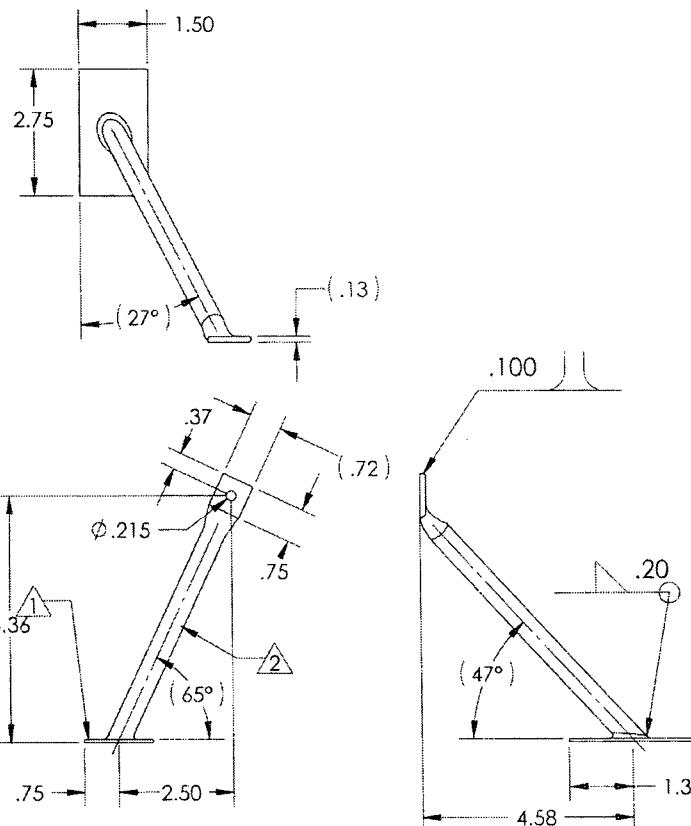
1 2 3 4 5 6 7 8

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REV	DESCRIPTION	DATE	APPROVED

A NOTES:

- 1. MATERIAL: 6061-T6 ALUMINUM IAW AMS-QQ-A-250/11;  
.062" THK.
- 2. MATERIAL: 6061-T6 ALUMINUM IAW AMS-WW-T-700/6  
.500" OD; .062" WALL THK
- 3. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2  
COLOR BLACK;  
CARDINAL 4860-50 PRETREATMENT PRIMER  
PRIME IAW MIL-P-23377J TYPE I CLASS N
- 4. DEBURR AND BREAK ALL SHARP EDGES
- 5. WELDS IAW MIL-STD-2219.  
TIG WELD WITH FILLER ROD



646.3510 SHOWN  
646.3511 OPPOSITE

UNINCORPORATED ECN(s)

02197, 02440,

QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.
PARTS LIST					
		646.3513	STRUT	△△△	△△
		646.3512	STRUT	△△△	△△
		646.3511	STRUT	△△△	△△
		646.3510	STRUT	△△△	△△

NEXT ASSY (S) 646.4000

DRAWN BY J. HARRIS  
CHECKED BY P. BRAVO  
DESIGN APPROVAL P. BRAVO  
DATE 04-23-08  
CONTRACT NO. 63

APICAL INDUSTRIES  
2698 TEMPLE HEIGHTS DR.  
OCEANSIDE, CA. 92056-3512 (760)724-5300

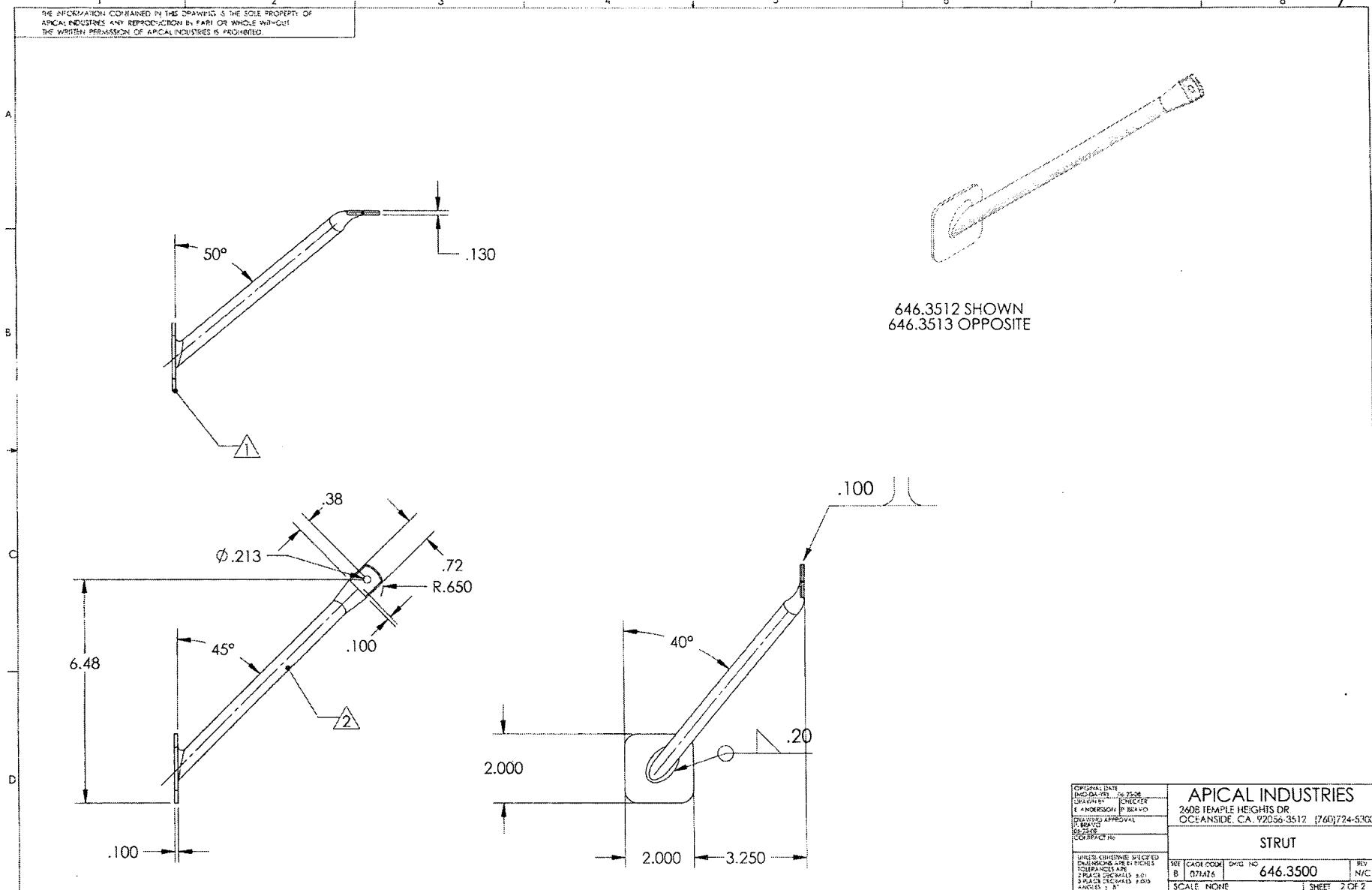
STRUT

REF CAGE COPY GNG NO 646.3500 REV N/C  
R 07/08 SCALE NONE 1 SHEET OF 2



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108016



## Linda Lacelle

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**From:** Pablo Bravo  
**Sent:** September-13-13 12:11 PM  
**To:** Jean-Luc Menard  
**Cc:** Linda Lacelle  
**Subject:** Re: STRUTS 646.3500

JL,

Go ahead and manufacture the parts you need to replenish stock. I'll try to get a date for the drawing release ASAP.

Pablo

On Sep 13, 2013, at 8:31 AM, "Jean-Luc Menard" <[jmenard@dartaero.com](mailto:jmenard@dartaero.com)> wrote:

Hi Pablo,  
As discussed yesterday,dwg's are under review.  
Just need your blessing so we can manufacture to meet current orders.  
THX  
JL

**Jean-Luc Ménard**  
*Production Engineering Supervisor*

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